



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,595	06/20/2006	Eric Francis Morand	11982.105003(BDW004)	2505
20786	7590	04/29/2009		
KING & SPALDING 1180 PEACHTREE STREET, NE ATLANTA, GA 30309-3521			EXAMINER CHU, YONG LIANG	
			ART UNIT 1626	PAPER NUMBER
			MAIL DATE 04/29/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/552,595	<b>Applicant(s)</b> MORAND ET AL.	
	<b>Examiner</b> YONG CHU	<b>Art Unit</b> 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 47-57 is/are pending in the application.
- 4a) Of the above claim(s) 50, 54, and 57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 47-49, 51-53, 55 and 56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

Claims 47-57 are pending in this application. Claims 47-48 and 53 have been amended.

### ***Response to Amendment***

The Amendment by Applicants' representative Dr. Stephen C. MacDonald dated 02/11/2009 has been entered.

### ***Response to Arguments***

#### **Rejection of claims under 35 U.S.C. §112, 1<sup>st</sup> paragraph**

Applicants' amendment of claims 47 and 48 by deleting "prodrug" obviates the rejection of claims 47, and 48. However, the amendment does not overcome the rejection of claims 49-57, because the rejected claims still contain the term "prodrug". Therefore, the rejection of claims 49-57 is maintained.

#### **Argument/amendment over rejection of claims under 35 U.S.C. §102(b)**

Applicants' amendment of claims 47, 49, and 56 obviates the rejection.

#### **Claim objection**

Applicants' amendment of claim 53 obviates the rejection.

Since the amendment has overcome the cited art 102 rejection, the Examiner has expanded the search to part of the previously non-elected subject matter, and new prior art anticipates the expanded scope of subject matter. Accordingly, claim 50, 54, and 57 are provisionally further withdrawn from consideration. The withdrawn

Art Unit: 1626

compounds and compositions contain varying functional groups which are chemically recognized to differ in structure, function, and reactivity. The scope of the invention is set in considering the elected species and the preferred embodiments.

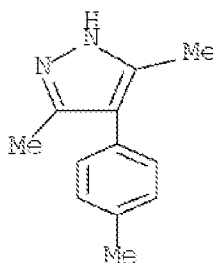
### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

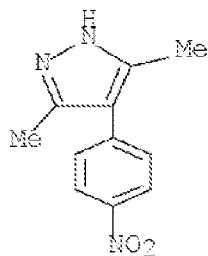
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 47-49, 51-52, and 56 are rejected under 35 U.S.C. 102 (b) as being anticipated by Fukata et al., *Yakugaku Zasshi* (1974), 94(1), p.36-43, ("Fukata et al.").

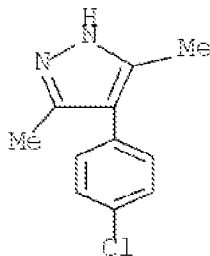


Fukata et al. disclose the compounds

(CAS RN 51463-82-2),

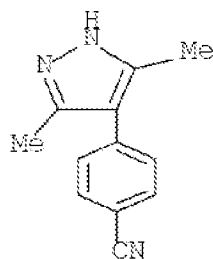


(CAS RN 42418-61-1),



(CAS RN 51463-7642), and

Art Unit: 1626



(CAS RN 51463-73-1P). These compounds anticipate the instant

claims 47-49, and 51-52.

***Claim Rejections - 35 USC § 103(a)***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

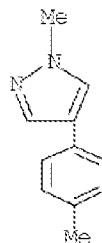
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 47-49, 51-53, 55, and 56 are rejected under 35 U.S.C. 103 (a) as being unpatentable by U.S. Patent No. 6,831,079, Yoon et al., ("the '079 patent").

Determination of the scope and content of the prior art (MPEP §2141.01)



The '079 patent disclosed a compounds (CAS RN 37921-11-2) as a pharmaceutical compound in Example, and a pharmaceutical composition comprising the compound thereof.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the '079 compound and the instantly claimed invention is that the instant invention teaches a compound having **Y'** is  $-NR_5$ , wherein **R<sub>5</sub>** is H or C<sub>2-20</sub>alkyl, while the prior art teaches the compound having **R<sub>5</sub>** as methyl group.

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

The instantly claimed invention would have been obvious over the '079, because one skilled in the art would have been motivated to prepare a homolog of a compound, wherein **R<sub>5</sub>** is H or C<sub>2-20</sub>alkyl, with expectation of obtaining compounds which could be used in the related compounds or composition for pharmaceutical utility. To those skilled in the chemical art, one homologue (i.e.  $-CH_3$  vs. H or C<sub>2-20</sub>alkyl) is not such an advance over adjacent member of series as requires invention because chemists knowing properties of one member of series would in general know what to expect in adjacent members, In re Wilder, 563 F.2d 457, 195USPQ 426 (CCPA 1977), and MPEP§2144.09. The motivation to make the claimed compounds derives from the expectation that structurally similar compounds would possess similar activity (i.e.

Art Unit: 1626

pharmacological use). Therefore, the instantly claimed compounds would have been suggested to one skilled in the art.

### ***Conclusion***

- No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### ***Telephone Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Chu, Ph.D, whose telephone number is 571-272-5759. The examiner can normally be reached on 7:00 am - 3:30 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Art Unit: 1626

Joseph M<sup>c</sup>Kane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Status information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

/Yong Chu/  
Patent Examiner  
Art Unit 1626